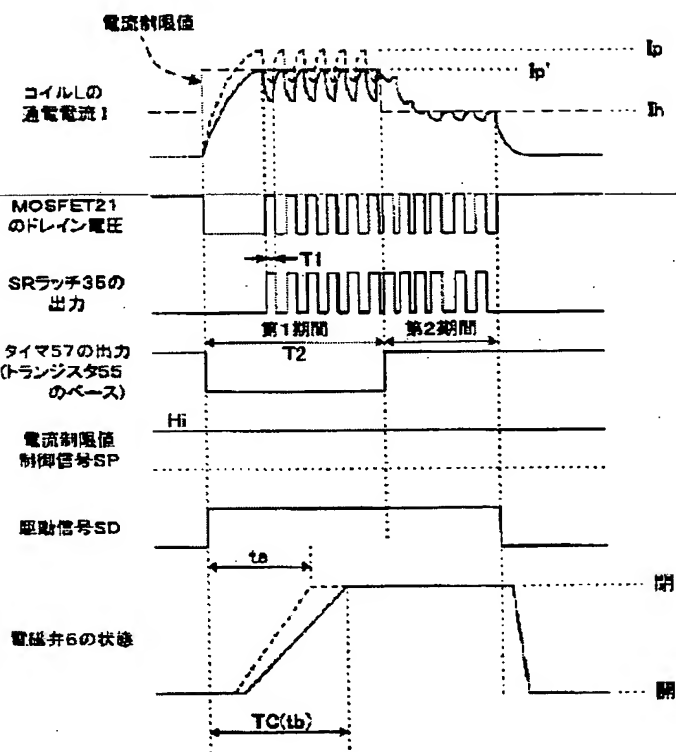


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## Patent Abstracts of Japan

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APPLICANT : DENSO CORP;  
INVENTOR : ITABASHI TORU;  
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TITLE : SOLENOID VALVE DRIVING DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To provide a solenoid valve driving device capable of preventing operation noise (butting sound) of a solenoid valve and keeping silence in a car room.

SOLUTION: During a first period of a predetermined period  $T_2$  from a starting timing of a conduction period to a solenoid valve coil, the solenoid valve driving device turns on MOSFET for conduction intermittently so as to restrict conduction current  $I$  of the coil to a sufficiently large first current limitation value  $I_p$ . During a second period after the predetermined period  $T_2$  until the completion of the conduction period, the solenoid valve driving device intermittently turns on the MOSFET so as to restrict the conduction current  $I$  of the coil to a second current limitation value  $I_h$  lower than the first current limitation value  $I_p$ . When it is determined that an engine is in an idling state, the current limitation value during the first period is changed to a third current limitation value  $I_{p'}$  lower than the first current limitation value  $I_p$  and higher than the second current limitation value  $I_h$ .

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